

Appl. No : 09/764,490
Filed : January 17, 2001

AMENDMENTS TO THE CLAIMS

The claims as listed below will replace all prior listings and presentations of claims in the above-identified application.

1. (CURRENTLY AMENDED) A method of controlling usage of a utility, the method comprising:

providing a control system at a consumer site;

receiving in said control system a representation of a utility usage by a utility-consuming device, said representation of utility usage comprising measured values of at least one output of said utility-consuming device as well as measured values of at least one utility input delivered to said utility-consuming device;

receiving and storing in said control system a usage range representation for said utility-consuming device comprising at least one pre-determined value of an expected output of said utility-consuming device and at least one pre-determined expected value of a utility delivered to said utility-consuming device; and

producing a control signal for use by a utility service controller, when said measured at least one output and at least one input values are outside of said usage range representation for said utility-consuming device, said control signal being operable to cause said utility service controller to interrupt or adjust a supply of said utility service to said utility-consuming device.

2. (ORIGINAL) The method of claim 1 further comprising transmitting said control signal to said utility service controller.

3. (ORIGINAL) The method of claim 1 wherein receiving said usage range representation comprises receiving user input specifying said usage range representation.

4. (PREVIOUSLY PRESENTED) The method of claim 1 wherein receiving said usage range representation comprises receiving a message from a communications system.

5. (PREVIOUSLY PRESENTED) The method of claim 4 wherein receiving said usage range representation comprises extracting said usage range representation from said message according to a network protocol.

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6. (CURRENTLY AMENDED) The method of claim 1 wherein receiving said representation of utility usage comprises receiving a plurality of representations of said utility usage representing usage of more than one utility by said utility-consuming device.

7. (CURRENTLY AMENDED) The method of claim 6 wherein said receiving and storing comprises receiving and storing a plurality of usage range representations for a plurality of utility-consuming devices.

8. (PREVIOUSLY PRESENTED) The method of claim 6 wherein producing said control signal comprises producing a derived representation from said plurality of representations of said utility usage and producing said control signal when said derived representation is outside of said usage range representation.

9. (PREVIOUSLY PRESENTED) The method of claim 7 wherein producing said control signal comprises comparing said representations of said utility usage with respective usage range representations and producing said control signal when a set of representations of said utility usage is outside of a corresponding set of usage range representations.

10. (PREVIOUSLY PRESENTED) The method of claim 1 further comprising storing said representation of said utility usage.

11. (PREVIOUSLY PRESENTED) The method of claim 10 further comprising displaying said representation of said utility usage.

12. (ORIGINAL) The method of claim 1 further comprising storing an indication of whether or not said control signal is active.

13. (ORIGINAL) The method of claim 12 further comprising displaying said indication.

14. (PREVIOUSLY PRESENTED) The method of claim 1 further comprising transmitting said representation of said utility usage to a remote location.

15. – 91. (CANCELED)

92. (PREVIOUSLY PRESENTED) A method of controlling usage of a utility, the method comprising:

providing a control system at a consumer site;

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receiving in said control system a representation of usage of a utility by a utility-consuming device, said representation of utility usage comprising a first representation of a quality or a quantity of a utility input to said device and a second representation of a quality or quantity of a product of utilization of said device;

calculating an efficiency of said device by comparing said first and second representations;

receiving and storing in said control system a usage range representation comprising a pre-determined value of expected efficiency of said utility-consuming device; and

producing a control signal for use by a utility service controller for controlling a flow of the utility to the utility-consuming device, when said utility usage is outside of said usage range representation.

93. (NEW) The method of claim 92 further comprising transmitting said control signal to said utility service controller.

94. (NEW) The method of claim 92 wherein receiving said usage range representation comprises receiving user input specifying said usage range representation.

95. (NEW) The method of claim 92 wherein receiving said usage range representation comprises receiving a message from a communications system.

96. (NEW) The method of claim 95 wherein receiving said usage range representation comprises extracting said usage range representation from said message according to a network protocol.

97. (NEW) The method of claim 92 wherein receiving said representation of utility usage comprises receiving a plurality of representations of said utility usage representing usage of more than one utility by said utility-consuming device.

98. (NEW) The method of claim 97 wherein said receiving and storing comprises receiving and storing a plurality of usage range representations for a plurality of utility-consuming devices.

99. (NEW) The method of claim 97 wherein producing said control signal comprises producing a derived representation from said plurality of representations of said

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utility usage and producing said control signal when said derived representation is outside of said usage range representation.

100. (NEW) The method of claim 98 wherein producing said control signal comprises comparing said representations of said utility usage with respective usage range representations and producing said control signal when a set of representations of said utility usage is outside of a corresponding set of usage range representations.

101. (NEW) The method of claim 92 further comprising storing said representation of said utility usage.

102. (NEW) The method of claim 101 further comprising displaying said representation of said utility usage.

103. (NEW) The method of claim 92 further comprising storing an indication of whether or not said control signal is active.

104. (NEW) The method of claim 103 further comprising displaying said indication.

105. (NEW) The method of claim 92 further comprising transmitting said representation of said utility usage to a remote location.